

REMARKS

Reconsideration of this application as amended is respectfully requested.

Claims 1-21 are pending in the application. Claims 1-21 are rejected.

Claims 1-3 and 12-16 stand rejected under 35 U.S.C §102(b) as being anticipated by U.S. Patent No. 5,510,806 of Busch ("Busch"). Claims 18-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,483,250 of Herrick ("Herrick"). Claims 4-11 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Busch in view of U.S. Patent No. 5,782,548 of Miyashita ("Miyashita"). Claim 21 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Herrick in view of Miyashita.

Claims 1, 7, 8, 10, 12, 17, and 18 have been amended.

Claims 1-3 and 12-16 stand rejected under 35 U.S.C §102(b) as being anticipated by Busch. Claims 1 and 12 have been amended. Applicant respectfully submits that Claims 1-21 are patentable under 35 U.S.C. §102(b) over Busch. Busch discloses a portable computer having an LCD projection display system. The computer of Busch includes a generally rectangular base housing in which the various operating circuitry and component of the computer are disposed. A conventional keyboard structure is operatively mounted on the top side of the base housing. A thin plastic display screen structure is secured to the base housing by a hinge. Busch further discloses that a small LCD projection structure carried by the base structure projects an image in magnified form onto the front side of the screen. The LCD projection structure includes a projection lens, a LCD projection panel, and a high intensity light source. During operation, an image is created on the LCD projection panel and projected to the screen. (see e.g., col. 3, line 9 to col. 4, line 30 and Figure 1). The item 52 as cited in the Office Action is "a suitable configured rear surface 52" of the projection lens 50. (see e.g., Figure 2 and col. 3, lines 62-63). Thus Busch does not disclose any "micro projection device including a liquid crystal on silicon (LCOS) device". Nor does Busch disclose any "wireless mouse to receive user input".

Thus, Busch does not teach or disclose the claimed present invention. For example, with respect to Claim 1, Busch neither teaches nor discloses:

an optical subsystem coupled to said computing subsystem, said optical subsystem comprising a micro projection device integrated into said apparatus to project an image for said computing subsystem onto a viewing surface, said micro projection device including a liquid crystal on silicon (LCOS) device.

(Claim 1, in part). Applicant respectfully submits that the rejection to Claim 1 based on 35 U.S.C. §102(b) has been overcome. Furthermore, for at least the same reasons noted above with respect to Claim 1, Claims 2-21 are similarly distinguishable over the Busch reference.

Similarly, with respect to Claim 12, Busch neither teaches nor discloses:

a wireless mouse coupled to said processor, said wireless mouse to receive user input, and to send said user input to said processor via a first wireless communication link;  
a light modulator coupled to said graphics controller, to receive said display data and to modulate light based on said display data;

(Claim 12, in part). Applicant respectfully submits that the rejection to Claim 12 based on 35 U.S.C. §102(b) has been overcome. Furthermore, for at least the same reasons noted above with respect to Claim 12, Claims 1-11 and 13-21 are similarly distinguishable over the Busch reference.

Claims 18-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Herrick. Claim 18 has been amended. Applicant respectfully submits that Claims 1-21 are patentable under 35 U.S.C. §102(b) over Herrick. Herrick discloses a projection display system for a laptop computer or a notebook computer. The computer of Herrick includes: a housing supporting a keyboard; a hinged, foldable screen; and a projection system positioned in the housing and projects processed information onto a screen. Herrick discloses that the projection system is similar to that utilized in big screen televisions and micro-miniaturized for a laptop computer and similar in electro-optical structure to hand-held micro-miniature televisions. The projection system allows for display of processed or stored information on a real time basis.(see e.g., col. 2, lines 45-62 and Figure 1). Although Herrick discloses projecting stored information, there is no mention of any frame buffer. Nor does Herrick disclose a liquid crystal on silicon device.

Thus, Herrick does not teach or disclose the claimed present invention. For

example, with respect to Claim 18, Herrick neither teaches nor discloses:

modulating light beams with a liquid crystal on silicon device  
in response to said display data;

(Claim 18, in part). Applicant respectfully submits that the rejection to Claim 18 based on 35 U.S.C. §102(b) has been overcome. Furthermore, for at least the same reasons noted above with respect to Claim 18, Claims 1-17 and 19-21 are similarly distinguishable over the Herrick reference.

Claims 4-11 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Busch in view of Miyashita. Claims 4-11 depend directly or indirectly on independent base Claim 1 and add additional limitations. Similarly, Claim 17 depends indirectly on independent base claim 12 and adds additional limitations. Claims 1, 7, 8, 10, 12, and 17 have been amended. Applicant respectfully submits that Claims 1-21 are patentable under 35 U.S.C. §103(a) over Busch in view of Miyashita.

A prima facie case of obviousness exists when (1) either the reference themselves or the knowledge generally available to one of ordinary skill in the art contain some suggestion or motivation to modify the reference or to combining the reference teachings; (2) a reasonable expectation of success exist; and (3) the prior art reference or references teach or suggest all the claim limitations. Here, neither the references themselves nor the art generally contain a suggestion or motivation to combine the reference teachings as suggested by the Office Action.

Here, neither Busch nor Miyashita, individually or in combination, teach or suggest the present claims. It is respectfully submitted that Busch and Miyashita do not teach or suggest a combination with each other. Busch discloses a portable computer having an LCD projection display system as discussed above. (see e.g., col. 3, line 9 to col. 4, line 30 and Figures 1 and 2). However, there is no teaching or suggestion that Busch discloses "micro projection device including a liquid crystal on silicon (LCOS) device". Nor does Busch disclose any "wireless mouse to receive user input".

Miyashita does not remove the shortcomings of Busch. Miyashita discloses an image projection system and a method of controlling a projected pointer. Miyashita discloses a liquid crystal projector to project an image to a screen. The projector can be

remotely operated by a wireless remote controller. (see e.g. col. 6 line 64 to col. 7, line 30). Miyashita further discloses that a personal computer functions as the main control means for the liquid crystal projector. The computer comprises a mainframe, display, a keyboard, and a mouse. Figures 4 and 5 show both the keyboard and mouse physically connected to the computer. An operator operates keys of the keyboard and the mouse functioning as a pointing device to control the display position of the cursor. Miyashita discloses a remote controller, but notes the keyboard and mouse are the main operating portion. (see e.g., col. 8, line 46 to col. 9, line 14). In the event of a conflict between the remote controller with the keyboard and mouse, the remote controller is disregarded and priority is given to the directly connected keyboard and mouse. (see e.g., col. 10, lines 1-36). Miyashita is thus disclosing a keyboard directly connected to a computer, a mouse directly connected to a computer, and a remote controller. However, there is no teaching or suggestion that Miyashita discloses a wireless mouse or wireless keyboard. Nor does Miyashita disclose any liquid crystal on silicon device. Thus, Miyashita fails to teach or disclose the claimed present invention.

In any event, even if Busch and Miyashita were combined, such a combination would lack one or more features of independent base Claim 1. A combination of Busch and Miyashita would fail to teach or disclose:

an optical subsystem coupled to said computing subsystem,  
said optical subsystem comprising a micro projection device  
integrated into said apparatus to project an image for said  
computing subsystem onto a viewing surface, said micro projection  
device including a liquid crystal on silicon (LCOS) device.

(independent Claim 1, in part).

Therefore the combination of Busch and Miyashita fails to teach or disclose that claimed in independent base Claim 1. Applicant respectfully submits that the rejection to dependent Claims 4-11 and 17 based on 35 U.S.C. §103(a) has been overcome.

Furthermore, for the same reasons noted above with respect to Claim 1, Claims 2-21 are similarly distinguished over the Busch and Miyashita references, alone or in combination.

Similarly, even if Busch and Miyashita were combined, such a combination would lack one or more features of independent base Claim 12. A combination of Busch and

Miyashita would fail to teach or disclose:

a wireless mouse coupled to said processor, said wireless mouse to receive user input, and to send said user input to said processor via a first wireless communication link;  
a light modulator coupled to said graphics controller, to receive said display data and to modulate light based on said display data;

(independent Claim 12, in part).

Therefore the combination of Busch and Miyashita fails to teach or disclose that claimed in independent base Claim 12. Applicant respectfully submits that the rejection to dependent Claims 4-11 and 17 based on 35 U.S.C. §103(a) has been overcome. Furthermore, for the same reasons noted above with respect to Claim 12, Claims 1-11 and 13-21 are similarly distinguished over the Busch and Miyashita references, alone or in combination.

Claim 21 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Herrick in view of Miyashita. Claim 21 depends indirectly on independent base Claim 18 and adds additional limitations. Claim 18 has been amended. Applicant respectfully submits that Claims 1-21 are patentable under 35 U.S.C. §103(a) over Herrick in view of Miyashita.

Applicants submit that neither Herrick nor Miyashita, individually or in combination, teach or suggest the present claims. It is respectfully submitted that Herrick and Miyashita do not teach or suggest a combination with each other. Herrick discloses a projection display system for a laptop computer or a notebook computer as discussed above. (see e.g., col. 2, lines 45-62 and Figure 1). However, there is no teaching or suggestion that Herrick discloses a liquid crystal on silicon device. Miyashita does not remove the shortcomings of Herrick. Miyashita discloses a liquid crystal projector to project an image to a screen as discussed above. (see e.g., col. 8, line 46 to col. 9, line 14 and Figures 4 and 5). However, there is no teaching or suggestion that Miyashita discloses a liquid crystal on silicon device. Nor does a wireless mouse or wireless keyboard.

In any event, even if Herrick and Miyashita were combined, such a combination would lack one or more features of independent base Claim 18. A combination of

Herrick and Miyashita would fail to teach or disclose:

modulating light beams with a liquid crystal on silicon device  
in response to said display data;

(Claim 18, in part).

Therefore the combination of Herrick and Miyashita fails to teach or disclose that claimed in independent base Claim 18. Applicant respectfully submits that the rejection to dependent Claim 21 based on 35 U.S.C. §103(a) has been overcome. Furthermore, for the same reasons noted above with respect to Claim 18, Claims 1-17 and 19-21 are similarly distinguished over the Herrick and Miyashita references, alone or in combination.


Claim amendments, other than those specifically discussed above, were voluntarily made to broaden the scope of the Claims.

In summary, for the reasons noted above, Claims 1-21 are distinguished over the cited art and are in condition for allowance. It is respectfully requested that in view of the amendments and arguments set forth herein, the applicable rejections have been overcome. Favorable action is respectfully solicited. Allowance of the Claims is respectfully requested.

Please charge any additional charges to our Deposit Account No. 02-2666.

Respectfully submitted,

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